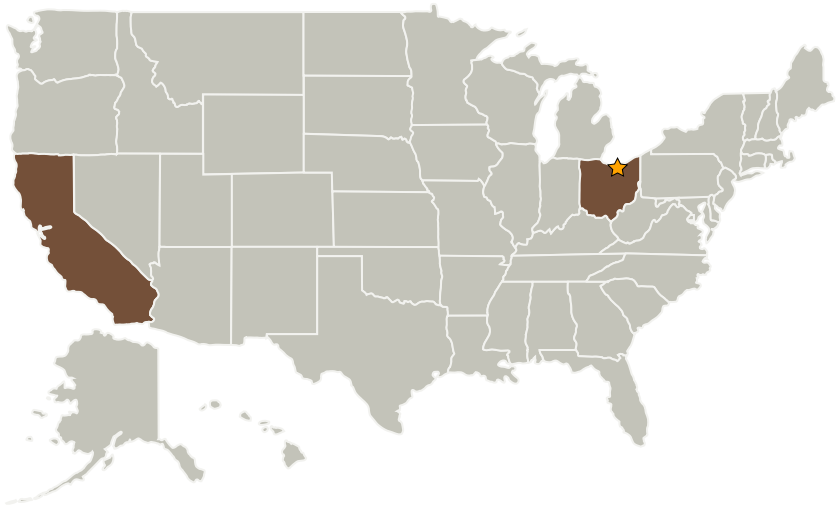
Miniature Solid-State Sulfur Oxide Sensor for Emissions Measurement, Phase I

Completed Technology Project (2004 - 2004)

Project Introduction

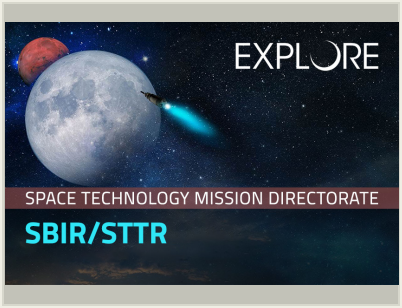
Makel Engineering Incorporated (MEI) and Case Western Reserve University (CWRU) propose to develop a MEMS based, minature solid state sulfur oxide sensor for use in emission measurements. The result of this effort will be a compact, robust means of SOx monitoring in high temperature gas emission streams has not been developed previously. The proposed system is based on previous research on advanced micro-machined gas detection sensors developed for sensitivity to other gaseous components (e.g. CO2, O2, NOx).

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Glenn Research Center(GRC)	Lead Organization	NASA Center	Cleveland, Ohio
Makel Engineering, Inc.	Supporting Organization	Industry Small Disadvantaged Business (SDB)	Chico, California

Primary U.S. Work Locations	
California	Ohio



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Glenn Research Center (GRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Benjamin Ward

Technology Areas

Primary:

- TX17 Guidance, Navigation, and Control (GN&C)
  - TX17.2 Navigation Technologies
    - TX17.2.3 Navigation Sensors